



The President, Mr. N. Sanjiva Reddy, addressing the Diamond Jubilee function of Osmania University at Hyderabad.

## ANDHRA PRADESH AGRICULTURAL UNIVERSITY

Administrative Office : 'Rajendranagar'  
Hyderabad-500030.

Advertisement No. 3/79 Dated: 9-7-1979

1. Applications in the prescribed form, together with a registration fee of Rs. 5/- are invited for the following posts in the Andhra Pradesh Agricultural University so as to reach the undersigned, on or before 15-9-1979. Applications received after the prescribed date and those received without evidence of having paid the registration fee and those submitted in a form other than one supplied by the Registrar, of this University, are liable to summary rejection:

(1) Bio-Chemist — 1 Post

**Qualifications**  
**Essential**

(i) A basic degree in Bio-Chemistry or related field.

(ii) A Doctorate degree in Bio-Chemistry or related field with experience in Microbial Physiology and/or Enzymology, or an equivalent degree or published work of an equally high standard.

(iii) 5 years research experience in the subject concerned with ability to do research independently.

**Note:** Requirement of a basic degree may be waived in specially deserving cases or in specific fields to inservice personnel.

**Desirable**

Experience in the fields of nitrogen fixation or methanogenesis.

**Scale of Pay**

Rs. 1200-50-1300-60-1900. Temporary till 31-8-1981 and likely to continue.

(2) Microbiologist—1 Post

**Qualifications**  
**Essential**

(i) A basic degree in Bio-Chemistry/Microbiology or related field.

(ii) A Doctorate degree in Bio-Chemistry/Microbiology or related field with experience in methanogenesis or nitrogen fixation or an equivalent degree or published work of an equally high standard.

(iii) Five years research experience in the subject concerned with ability to do research independently.

**Note:** Requirement of a basic degree may be waived in specially deserving cases or in specific fields to inservice personnel.

**Desirable**

Experience in Microbial Physiology and/or enzymology.

**Scale of Pay**

Rs. 1200-50-1300-60-1900. Temporary till 31.8.1981 and likely to continue.

3. Analytical Chemist—1 Post

**Qualifications**  
**Essential**

(i) A basic degree in Chemistry/Bio-

Chemistry or Microbiology or related field.

(ii) A Doctorate degree in Chemistry/Bio-Chemistry or Microbiology or related field with experience in gas liquid chromatography, or an equivalent degree or published work of an equally high standard.

(iii) Five years research experience in the subject with ability to do research independently.

**Note:** Requirement of a basic degree may be waived in specially deserving cases or in specific fields to inservice personnel.

**Desirable**

Experience with Microbial systems.

**Scale of Pay**

Rs. 1200-50-1300-60-1900. Temporary till 31.8.1981 and likely to continue.

4. Technical Assistants—2 posts

**Qualifications**

**Essential**

(i) A degree in sciences preferable in Microbiology with experience in Microbiology/Bio-Chemistry Laboratory.

**Desirable**

Knowledge of Microbiological techniques and ability to use Sophisticated analytical instruments.

**Scale of Pay**

Rs. 425-700. Temporary till 31.8.1981 and likely to continue.

2. Persons already in service must submit their applications through their employers, sending a copy direct so as to reach the undersigned within the prescribed date. Selection in their cases will, however, be subject to the employer's agreement to relieve them.

3. Applicants should be prepared, if so required to appear for personal interview before the Selection Committee at the Headquarters of the University, at their Own cost.

4. The persons selected will be on probation for a period of two years on duty within a continuous period of three years.

5. Selected candidates are liable to be transferred to equivalent posts (any where in Colleges or Research stations) under the University.

6. It is open to the University to fill or not to fill the posts now advertised.

7. Application forms can be had from the Registrar, Andhra Pradesh Agricultural University, Rajendranagar, Hyderabad-500030 on payment of Rs. 2/- in person or through postal order uncrossed.

T. Narayan Reddy  
REGISTRAR

## BHOPAL UNIVERSITY BHOPAL

### ADVERTISEMENT NO. 2 79

Applications in the prescribed form (obtainable free by self addressed envelope of 24×12 cms size bearing stamps worth 50 paise) are invited for the following temporary posts of the Institute of Correspondence Courses of this University, in the scales mentioned against each with benefits of allowances as admissible under the University Rules:

S. No.	Post	No. of posts	Scale	Qualifications & Experience	Age
1	Reader-cum-Deputy Director	One	1100-50-1600	2nd class Master's Degree in Arts or Social Science or Commerce, Ph.D. or Published work of an equivalent high standard. 5 yrs. Post-Graduate classes Teaching experience with 5 yrs. administrative experience.	55 years as on 1.7.79
	Lecturer in Commerce	Two	620-40-900-50-1400	2nd class Master's Degree in relevant subject. Ph.D. or published work of an equivalent high standard. 2 years experience Post-graduate classes Teaching experience.	50 years as on 1.7.79
	Lecturer in Sociology	One	-do-		
	Lecturer in History	One	-do-		

Detailed information in regard to qualifications, experience will be supplied along with the application form.

Those who have already applied previously for the posts shown at S. Nos. (1) and (2) in response to advertisement No. 2/78 and for the posts shown at S. No. (3) & (4) in response to advertisement No. 1/77 need not apply again. However they should inform if they are still interested in the job and are willing to attend the interview.

Applications should reach the undersigned on or before 5.8.79.

M.G. Paithankar  
REGISTRAR

# UNIVERSITY NEWS

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and reviews are individual and do  
not necessarily reflect the policies  
of the Association*

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Hony. Editor : ANJNI KUMAR

## Selection Procedures for Faculty Positions in Universities

Suresh C. Goel\*

One of the major reasons for indifferent quality of teaching and research in centres for higher education in India is in all probability the induction of inappropriate persons to faculty positions. This in turn is possible due to a lack of proper criteria and procedures for selections.

Over the years, since independence, there has been a growing tendency in almost all universities to interbreed their faculty. Inbreeding of faculty, like inbreeding in nature, may lead to disastrous consequences, unless, in rare cases by a matter of chance, the original stock was genuinely free of various weaknesses; in such cases the inbred population continues to demonstrate considerable merit. For the above reasons, the considerations that weigh at the time of faculty recruitment are parochial, caste and group affiliations, and not the academic merit or aptitude of the candidates. Since the manner of selection in almost all Universities is based on recommendations by selection committees, which have no guidelines to adhere to and do not have to justify their recommendations, the selection procedure has come in disrepute, and justifiably so. First, the advertisements are usually tailored for certain candidates, without any regard for the needs of students and departments; second, members on the selection committee are appointed for pliability to favour the 'desired' candidates and without regard for their erudition in the subject or capacity for judgement.

The purpose of this brief article is to initiate a nationwide debate on the process of selection so that a better, even if not an ideal, system of faculty recruitment may emerge. I shall mainly concern myself with: the requirements from a teacher, criteria for their selection and composition of the selection committees.

The primary function of a teacher is to acquire the latest knowledge from various sources, assess it, integrate it, and effectively communicate it to students. In philosophy and most of the time in languages and also in mathematics, it usually does not require any separate research training. But in laboratory-oriented natural sciences, and lately also in the social sciences, a research training is essential to a good teacher; not so much to create new knowledge, but to assess the merits of many publications using various laboratory techniques and research methodologies. Moreover, a teacher is always in full view of his students and is often a model to their impressionable minds. For this reason he must bear a good moral character, must be honest, and must be sympathetic to the problems of students.

(Contd. on page 406)

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\* Deptt. of Zoology, Poona University.

# Developing University Advisory Teaching Service

Motilal Sharma\*

The conventional model of University teaching is concerned to a) present and cover a body of knowledge; b) provide means whereby the student has to exercise his understanding of a field or discipline; and c) evaluate the relative competence of students. According to this model it is taken for granted that the University students are already proficient individual learners. The texts, prescribed reading notes and the like are, together with the teaching they receive, efficient material resources for learning to take place. Moreover students are generally expected not only to be proficient learners but also to be reasonably highly self-motivated to be concerned to learn, so interested in their subject that little or no specific provision is made to counter loss of motivation or interest.

Lecture, as methodology, is used for the presentation of knowledge to relatively large groups of students. Opportunity for the student to practise what he has learned, to show that he has command of the appropriate forms of thought is provided in the tutorial, the laboratory, the 'clinic' and in field work. The relationship between the lecture and the tutorial and other small group situations may only be a very loosely correlated one in terms of student learning. At the end of the year evaluation of student learning takes place in the form of examination (written examination). Answer works are examined for evidence of the extent that the student appreciates a way of thinking, problem solving and the like and is graded accordingly. Such examinations, in most cases, do not give even limited feedback to both the teacher and the student. Furthermore the techniques of examining employed are general in form and relatively loose in structure. They follow what has been and is the customary practice. Still this conventional model of university teaching is considered to be powerful because for very many years it has produced the results required of it.

In the changing scene of education the conventional model of university teaching is demonstrating signs of stress as new courses and approaches to learning are called for by both staff and students. It is here that conventional University teaching may find support in the application of educational technology of the kind which will facilitate the transition of university teaching as it develops to meet the more demanding claims being made of it. Educational technology, as yet, is relatively untried but even so has in its terms produced promising results especially in service and supporting programmes. It has also shown the possibility of a new attack on old problems—on specifying educational objectives and in the structural analysis of fields of study. Thus the pivot of support by educational

technology to university teaching will most likely reside in the concept of design for learning which is explicit in the application of educational technology and implicit in the construction of conventional courses. The proposed design of instructional system calls for ends to be specified, the assessment of means to be used, the development of resources and the evaluation of results. In the conscious efforts to plan courses, the place of educational technology in university teaching may become increasingly evident but only if advice, information and resources are made available and only if a programme of education is mounted. Here below is given a modest proposal of university advisory teaching service for consideration by those concerned with university education.

## University Advisory Teaching Services

The principal function of this unit is to support the University's instructional programmes through the provision of a variety of services, through information sources, specialised expertise, hardware and software resources, production facilities etc. This unit will make professional staff available to assist departments and faculty members to re-develop courses, plan and evaluate new instructional methods and procedures, design new instructional systems, produce appropriate instructional materials and evaluate their effectiveness and acceptability. While faculty members cannot, in most cases, decide on the content of what they teach they can most certainly make decisions about the manners in which they teach, how they solicit and respond to Student feedback, how they formulate their course objectives, how they use media and so on. Through this instructional development process the proposed Unit can focus all of its resources on the improvement of instruction in a specific course areas.

The proposed unit may support the university departments and faculty members by providing :

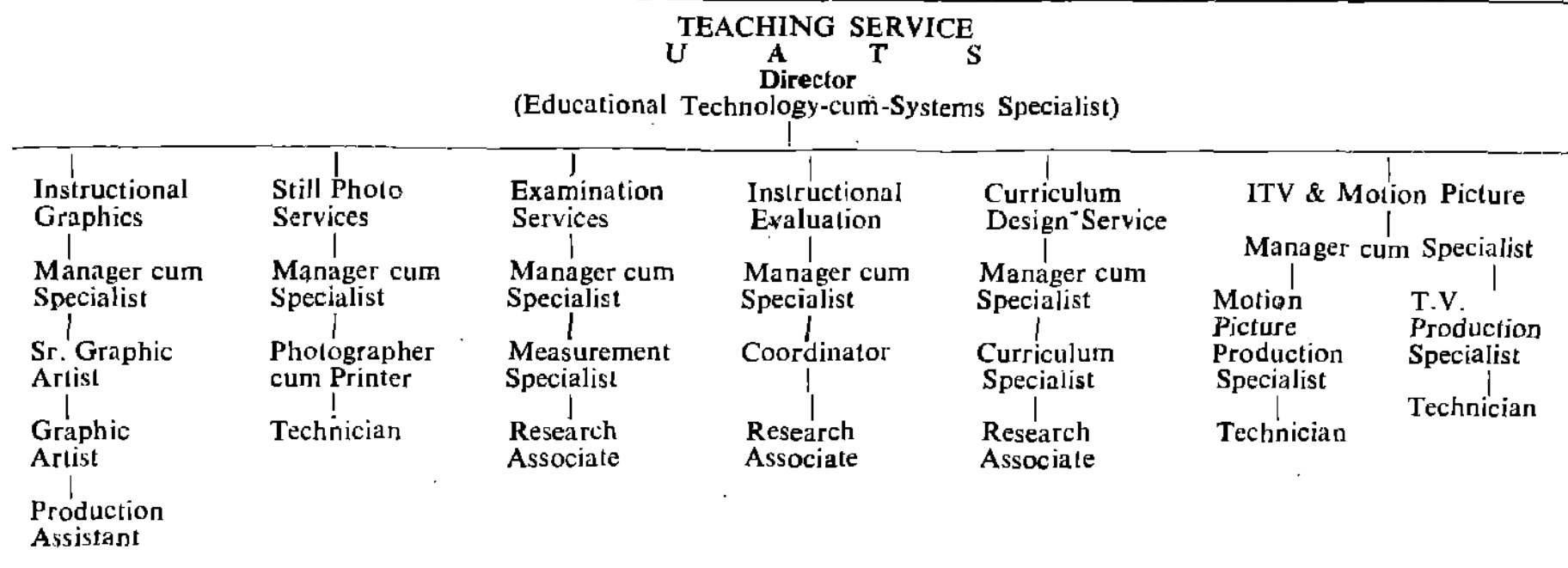
1. Assistance in formulation of instructional objectives.
2. Assistance in designing of learning facilities.
3. Facilities for production of instructional materials : Slides, filmstrips, films, transparencies, graphics, videotapes, audiotapes etc.
4. Faculty members with practical information aimed at assisting them to experiment and innovate by offering regular workshops on teaching method.
5. Information Service by collecting essential reference material in the form of books, journals and newsletters.
6. Assistance in the design of study guides for students and manuals for teachers and in the publication of guides and manuals.
7. Assistance in construction of tests of student achievement.

\*Reader in Education, South Gujarat University.

8. **Expertise for development of evaluation procedures** for lessons and courses.
9. A confidential diagnostic course evaluation service aimed at isolating and illuminating those aspects of the courses the respective faculty member teach which may need improvement.

The flow chart given below presents tentative outline of structure of the proposed University Advisory Teaching Service.

and test score summarization. This unit will make professional staff available to consult with faculty members on the construction, revision, scoring and interpretation of all types of examinations, including essay tests and objective tests. It should take work of validating tests and establish norms on the basis of test results. Item analysis of objective tests may also be provided by this unit. Research staff may investigate factors involved in test performance.



### Instructional Graphics Service

The head of the departments activities, in addition to the normal interaction with clients when work is booked, include speaking to several faculty seminars and student seminars at the beginning of a term. The purpose of these talks will be to orient and make aware the teachers and students of various methods and techniques of presenting visual materials.

Instructional Graphics services will assist faculty members in the preparation of visual material for the instruction programme at the university. This service may produce many forms of visual materials including lettering, illustrations, charts, diagrams, television art work, animation art work and transparencies for use on the overhead projector.

### Still Photography Services

Staff members of this unit will assist faculty in developing creative photographic materials for instructional use.

Services provided by this unit include photographic assignments suited on location or in the studio; consultation and assistance on the preparation, production and the presentation of photographic materials for instructional use; and the production of filmstrips, copy slides and duplicate slides in colour or black and white.

### Examination Services

Examination services department may consist of two sections : 1) Professional services and 2) Operations, working together to provide measurement-related services for faculty members and departments of the university. This unit may assist in designing, constructing, interpreting and improving tests. It may also take up work of test scoring, item analysis

### Instructional Evaluation Service

This unit will provide consultation in the design of course evaluation procedures to faculties and assist them in the construction of special evaluation instructed pre-development inventories, lesson and/or module evaluation forms and total course evaluation questionnaires. In fine, the purpose of this unit could be to provide assistance to faculty members in the design and development of evaluation instruments to be used in planning and evaluating courses with the object of improving instruction.

### Curriculum Design Services

These services will include conducting projects for development of curriculum, consultancy to faculty members for designing and planning curriculum, and research in curriculum planning. Expertise for evaluation of curriculum will also be provided by this unit.

### ITV and Motion Picture Services

The first responsibility of this unit could be to support the faculty members by producing films for the university community at the lowest cost. More specifically these services may include conventional studio or location photography synchronons or non-synchronons sound recording for film use and broadcast quality recording for use with other media. Editing of footage photographed by faculty or staff members, along with sound track cutting and preparation for final printing. In other words this unit should provide a professional production facility that can supply appropriate teaching, research and informational films for use by the university. An experienced staff would be available for consultation on film production problems.

Under instructional television services it will



provide recording and closed circuit television facilities and personnel to support the instructional programme of the university. A staff of production specialists will be available to work with faculty members in developing and adapting courses for presentation through television.

As has already been mentioned that the proposed University Advisory Teaching Service aims at improving the quality of teaching and learning in universities. Here improvement implies change—a process that can be promoted in a variety of ways. The University could prescribe change as an institutional policy or change can be promoted by placing the owns on, and rewarding the efforts of the individual. Thus an individual, a group of individuals, or an organisational entity, such as a department or faculty may be responsible for implementing a change. The 'Unit' of change and the power of decision making it will define the domain of change. In the existing situation the domain of change could include

teaching methodology, use of media, formulation of instructional objectives and, receiving and responding to student feedback. The proposed infrastructure consisting of various supporting services could help in initiating and sustaining the change we are thinking of. Furthermore this infrastructure will help in encountering the phenomenon of resistance which is always inevitable to any innovation. This resistance may be because of ignorance, fear of failure, disinformation, lack of interest etc. Obviously it would be both unreasonable and impracticable to expect the University Advisory Teaching Service to solve all the teaching problems of university facilities but what it can do is to help university faculties identify and solve their own problems for themselves? It will require establishment of interface between the university faculties as 'units' of change would be, hopefully, willing to improve the courses they teach and instructional methodology they use provided that the necessary infrastructure to facilitate 'change' is presence. Hence this proposal. □

## Selection Procedures for Faculty Positions

(Continued from page 403)

The many qualifications that may be taken into account at the time of faculty recruitment include the academic career, teaching and research experience, and leadership and organisational ability of the candidates. The weightage to be given to different qualities would vary according to the faculty position, subject, etc. The accompanying table provides a reasonable model for different positions in a natural science postgraduate-cum-research department. Similar tables can be evolved for language and other departments.

**Table**

Weightage to be given to different qualifications at the time of faculty recruitment in a natural science postgraduate-cum-research department of a University.

Faculty Position Qualification	Professor	Reader	Lecturer
Academic career	20%	35%	50%
Teaching	25%	15%	5%
Research	30%	25%	20%
Others (leadership, organisational ability, etc.)	15%	10%	5%
Seminar in Department	5%	5%	5%
Interview by Committee	5%	10%	15%
	100%	100%	100%

In considering academic career weightage must be given separately to performances at postgraduate (50%), graduate (25%) and undergraduate (25%) examinations. In teaching experience, not only the length of the teaching career be considered (40%) but also the classes and variety of subjects taught (30%), and innovations (including book writing) made by a teacher (30%). Similarly in research experience weigh-

tage be given separately to acquisition of a Ph.D. degree (25%), research guidance (25%) and publications (50%). Following the above guidelines all the applicants should be given marks (excluding interview and seminar marks) based on their biodata by atleast five experts (see below) before interview. The marks so given be compiled and consolidated in University office and no one securing less than 50% (of the total available) marks be invited for interview. The final selections will be made based on the total marks, obtained as above and those given by selection committee at the time of interview, and by a departmental committee in a seminar to be given by the candidate in the department; in the departmental committee constituted for this purpose at least half of the members shall be students.

It is necessary that the selection committee should normally be drawn from all over India and retired persons are positively discouraged from being on the committee unless they are actively engaged in teaching and research. Usually a minimum of ten persons should be invited on the selection committee and at least three of them must be present at the time of interview. It is also important that no person be invited to act on the selection committee of a professor unless he himself is a Professor of standing of five years; comparable constraints need to be put for persons on selection committees of lecturers and readers.

In addition to the usual faculty one should certainly think of other persons being involved in student training. For example, the following three possibilities can be considered. First, different creative writers (poets, novelists, etc.), thinkers or scientists of outstanding merit be invited as visiting faculty members to associate themselves with a department's teaching/research schedule for a semester period. Second, out-

(Continued on page 415)

# Citation Analysis and its Application to Library and Information Science Management

B.M. Gupta\*

Citation analysis is defined as an activity involving analysis of the citation or reference which forms a part of primary scientific communication. When one scientific paper (B) makes mention's or makes reference to another scientific paper (A), the later has been cited by the former as a source of information, as support for the point of view, as authority for a statement of fact, *et al.* The word citation is used not only to indicate the fact that scientific paper(A) has been cited in reference but also for a description of scientific paper(A) (J. Bact. 63,399). In this sense, citation and references are frequently used interchangeably to mean the "location" or "identification" of the scientific paper in question.

The citations in papers are provided for a number of reasons. Some of them are ethical and some are non-ethical. The dominant reasons for citing references is that they provide identification of those earlier researchers whose concepts, methods and apparatus, etc have inspired and influenced the authors. WEINSTOCK has elaborated in detail the specific reasons for citations which are as follows : Paying homage to pioneers; giving credit for related work; identifying methodology, equipment *et al*; providing background reading; correcting one's own work; correcting the work of others; criticising previous work; substantiating claims; alerting researchers to forthcoming work; providing leads to poorly disseminated, poor indexed or uncited work; authenticating data and classes of fact-physical constants; identifying original publications in which idea or concept was discussed; identifying the original publication describing an eponymic concept or term; disclaiming work or ideas of others and; disputing priority claims of others.

The basic philosophy behind citing analysis is very simple. If a recent paper cites a previous paper, it is assumed that there is some association of ideas between the citing and the cited paper. Also science is like an edifice, building upon the past. The first index based on this philosophy was the Shepards Citation Index in the legal field, which was in vogue for the last one century. In legal field, precedence has an important consideration for building up new cases. When an earlier legal case is cited as a prece-

dence to prove a point in a recent case then this fact is signalled in the Shepard Index by bringing the bibliographical particulars of the recent case or cases immediately under the name of the earlier case. Dr. Garfield took inspiration from this idea and thought that the above philosophy could be applied equally well in science and technology because of its cumulative in nature. As a result, he started doing experimental studies and brought out an experimental Science Citation Index (SCI) in 1961. Since 1964, this index has been brought out as a regular index by the Institute of Scientific Information at Philadelphia, USA. With the emergence of Science Citation Index on the scene, the practice of citation Indexing got lot of stimulus and support in terms of saving of efforts and possibility of undertaking variety of studies. This paper has been divided into two parts. The first part will deal with scope, coverage, structure and functions of various parts of Science Citation Index. The second part will deal with various applications which have implications on library and information management.

## Science Citation Index

Science Citation Index (SCI) is an indexing service, based entirely on the citations made in the current documents and brought out by Institute of Scientific Information, Philadelphia, USA. Since it is an indexing service, it has also taken initially certain basic clearcut decisions with regard to its : scope in terms of exact subject area; coverage in terms of type of documents and the periodicals to be scanned regularly, policy regarding inclusion or rejection of items falling within the category of documents that will come for scanning, frequency of publication, format and method of presentation, nature of supporting indexes, etc. like any other indexing service. The area covered in SCI is science and technology in general. This is in sharp contrast to other indexing services where the area of coverage is normally well defined. In the selection of journals in SCI, the governing policy is to cover all the core journals in almost all sectors of science and technology with some emphasis on interdisciplinary journals. The list of journals covered by SCI is known as 'List of Source Journals'. This list is revised and enlarged from time to time. In 1961, this list consisted of 613 journals. Gradually it increased to 1146 journals in 1965, 2192 journals in 1970 and at present

\* Centre for the Study of Science, Technology & Development CSIR, New Delhi.

comprised about 2700 journals. As compared to any other conventional indexing service, two points are worth noticing in the coverage of SCI. Firstly the coverage of journals is very small. Secondly, SCI covers complete source periodical i.e. includes articles, short communications, letters, abstracts, reviews corrections and errata, discussions, conference items, editorials, tributes, obituaries, etc. The frequency of SCI is quarterly. The last issue is cumulative for the whole year.

The SCI consists of three sections : i) Source Index; ii) Citation Index; and iii) Permutern Index. The central section is the source index and the other two sections provide the main search facilities for the index. Each part has a different structure and contains different types of information and also serves different function independently as well as in combination. Initially SCI started with the first two sections, but later on the third section was added since 1966.

### (i) Source Index

The source index lists in alphabetical order the names of every author of every source item processed for the SCI during a particular period. Under a primary author's name source items sort first by year, then they are listed in alphabetic order by journal title abbreviation, and then in order by volume and page number. Each entry provides the following information: co-authors (a maximum of ten); a two letter code for languages other than English; title of the article abbreviation; volume; issue or supplement in parentheses; beginning and ending page number after the colon; year of publication; code indicating type of source item (letter, review, etc.); number of references provided by the source item. The names of secondary authors are cross-referenced to a first author by a "see" reference. This reference includes the name of primary author and a brief bibliographic description of the source item journal title abbreviation, volume, beginning page and year). Anonymous source items appear at the beginning of source index and are listed alphabetically by source journal title abbreviation. In case of non-journal material, source items describing, book chapters are listed under the primary author's name. Each entry then lists the co-authors of chapters (a maximum of ten), language code if appropriate, the chapter title, the book number, beginning and ending page numbers of the chapter, the copyright data of the book, a code indicating type of source item, and number of reference in the chapter. The source index also contains a separate part known as corporate Index. This index alphabetically lists every organization affiliated with current source items. Under each organization one will find information that will enable him to locate the individual items associated with a given organization in the Source Index. This information is : primary author, journal title abbreviation, or book number, volume, page and year. The main function of the source index is to provide full bibliographical details for the abbreviated descriptions of items in the other sections. In

this index, only one type of approach is available. If one knows the name of a researcher, then one can find out any other recent work of the researcher during the period covered by the SCI. All research workers normally know or are supposed to know the names of the important authors in their field.

### (ii) Citation Index

In this index, entries are arranged alphabetically by cited author. Under the name of each cited author, cited items are arranged chronologically, and within years by journal title abbreviation. Citing items appear beneath the cited items and are arranged alphabetically by first author. The name of the cited author appears only once, at the head of a list of cited items. The form of the bibliographic description for a cited item is : year; journal title abbreviation; volume; page. The form of the bibliographical description of the citing item is : ISI source journal abbreviation; code for type of source item; volume; page; year. In the case of non-journal items, entries are arranged alphabetically by first author along with the citing items from ISI's source journals. Cited anonymous works follow the letter Z in the citation index, and are arranged by journal title abbreviation, and then chronologically. Within each year, cited items are arranged in order of volume and page.

The citation index also contains a section entitled 'Patent Citation Index'. The listing of cited patents follows the listing of anonymous reference citations. Entries are arranged by cited patent number; any alpha character are dropped. They usually provide the following information: year of issue; inventor or assignee, and issuing country. A list of the abbreviations used for the names of the issuing countries immediately proceeds the Patent Citation Index.

### (iii) Permutern Subject Index (PSI)

The PSI is a permuted title-word index to the items processed for the SCI. In this index, every significant title word is paired with every other significant word in the same title to produce for each annual index more than two million word pairs. PSI is just a natural language system i.e. based on the language used by authors in contrast to that used by indexes, and as just many advantages. If the reader recalls the title of the paper but not its author, a natural language index enables him to determine easily the complete identification of the paper.

In addition to its independent utility, PSI can serve to facilitate entry into the Citation Index (CI) section of the SCI. If a relevant starting reference is not already known, it can be found through a keyword in PSI.

In PSI, every significant word in an article's titled is paired with every other significant word. One of these words become a primary term, the other a co-term listed under the primary term. The PSI is arranged alphabetically by primary terms (items beginning with numbers follow entries beginn-



ing with the letter Z). All co-terms are listed alphabetically under each primary term.

### Applications to Library and Information Science

One of the problems generally faced by any librarian is how to build up a core collection in a library within the constraints of limited budget. There are two aspects of this problem namely: selection and procurement of journals: current as well as back-volumes; and selection and procurement of different types of materials like books, journals, reports, monographs, conferences and seminars, etc.

A number of researchers in the past have compiled "Rank List of Periodicals (based on citation counts) in various subjects which provide some idea about the selection of new journals in a library. These researchers also claim that such lists can provide the most objective and unbiased information regarding the preference of periodicals for a library. But it is generally seen that such lists although provide useful information, but at the same time, suffers from number of drawbacks. Because most of the studies on this aspect do not even take into account the length of the time each journal has been in existence. Before useful conclusions can be drawn, results must be expressed in units that allow for distorting factors, e.g. not as the frequency of use, but as densities of use per item, and so on. In fact core journals can, to a large extent, be selected from this list effectively, but the problem normally comes in the selection of middle ranking journals. Such middle level journals are likely to be ranked incorrectly through such lists, because most of the studies conducted in the past have been substantially changed in rank from year to year for such journals. Such drawbacks are clearly depicted in a study by SANDISON, which care compared lists of journals cited three or more times in the Journal of Ecology for two years, a decade apart (1955-56 and 1965-66). Altogether there were 150 titles in the two lists, but only 42 of these appeared in both the lists. Some of the differences can no doubt be attributed to genuine changes in the popularity of journals, but the significant amongst them must surely be due to statistical fluctuations. Similarly citation analysis can also provide some evidence on the need of old volumes and the extent to which period one should go in purchasing such volumes.

Apart from selecting journals, citation analysis also provides some rough evidence to the use of various type of library material i.e. books, periodicals, conferences and seminars, reports etc. This can help the librarian to reallocate his library funds accordingly. It is normally observed that among citation to various types of materials, periodicals account for 80 percent of the citations. This leads us to the conclusion that a major portion of the library funds for purchasing the collection, should go to periodicals. Another problem that is normally faced in a growing library, is the pressure of space required. Since a library is a growing organisation, a librarian has to frame a regular policy with regard to regular deletion of materials (not generally

used in the library). If we take a specific case of serials, then one has to take a decision: what volumes of which journals to discard or when. Obsolescence studies to some extent can provide a solution to this type of problem. But most of our earlier studies in this area, have shown a wide variations between individual journals, in the use made for them from year to year, resulting in the generalised obsolescence rates. In fact, such generalised obsolescence rates are of little practical value. In such cases, data have, therefore, to be collected for individual journals where uses of each volume have to be related to the space it occupies i.e. density of use-per-unit of shelf space.

Apart from above problem, a librarian has to take decision very often which journal's volume is to bind or not to bind and when. Infact some journals are heavily used in the beginning when they arrive in a library, but they serve no useful purpose for basic or retrospective searches. Such journals can be discarded straightaway without binding them. This can help the librarian in saving the space, efforts in maintaining them, and finally the cost of binding them.

In order to take such decisions, a librarian has to study diachronously the usage of individual journal volumes in his library. If the volumes of a given journal over say five year old are still used substantially, he will probably bind that journal and the question of discarding can be postponed for time being. If on the other hand, there is a rapid and large decline in usage, he may discard after some time without binding them.

Another important area, which citation analysis can be of considerable interest, is in providing proper design for location of material in a library. Such a design can help the library in preparing a proper time-schedule of its work as well as in providing timely service to the readers. This can be done firstly, by compiling data on the various titles according to frequency of use in the library. Then group of titles can be clubbed together in shelves according to the decreasing frequency of use. In fact, British Library Lending Division, at Boston Spa have located their shelves, on the basis of the above concept.

Citation analysis can also help the information system designers to plan his products. One of the problems, in which it can help them: in finding out which materials to scan and which to include in the abstracting/indexing/current awareness services.

For achieving this, one has to simply find out the densities of citation per citable item for various titles before and after inclusion in the above service. In addition to above applications, citation analysis can also help the library & information science workers in number of other ways such as in designing of classification schemes, studying the information needs of researchers, compilation of bibliographies, etc. □

# Management training course at Panjab Varsity

The Productivity Services and Training Unit of the Panjab University organised a two-week training course on "Management in Government". Dr. K. S. Gill, Vice-Chancellor of Guru Nanak Dev University inaugurated the course and delivered the keynote address on concept of planning for employment oriented development. In his address he said that planning could not be done without taking into consideration social, economic and political environment in the country. India was beset with a tripple malady: unemployment, under-employment and political unemployment. The remedy, Dr. Gill said, did not lie

cal and applied and its application could make a vital contribution to the society.

## Summer Institute in educational technology

The Department of Education of the Indore University conducted a Summer Institute in educational technology for the benefit of college teachers. The main objectives of the Summer Institute were: (i) to develop an understanding about the concept and management of educational technology; (ii) to develop competency in preparing auto-instructional software materials; and

Karnataka and Tamil Nadu, took part in the deliberations of the Summer Institute.

## RAU to start Dairy science courses

Keeping in view the requirements of dairy trained personnel, the Bihar State Government, at its meeting held recently in Patna, has decided to start diploma and BSc degree courses in Dairy Science at the Rajendra Agricultural University from the next academic session. In this connection Dr. A. K. Verma, Director of the Institute of Animal Health and Production, has suggested that in view of the dairy potentials of the State and the need for developing them, a full-fledged college of dairy science should be set up for imparting education in various disciplines of dairy husbandry and dairy technology. He said that researches should be carried out into various problems connected with them in known dairy belt of the state like Darbhanga, Madhubani and Saharsa.

Shri Tej Narain Yadav, Minister for Animal Husbandry and Fisheries presided over the meeting.

## Osmania to open adult education centres

Under the National Adult Education Programme of the Government of India the Osmania University proposes to start one hundred and fifty adult education centres shortly. The duration of teaching at these centres would be for eight months and each centre would be manned by three student instructors belonging to second and third years of the degree courses. Of the 150 centres, 70 will be in the twin cities of Andhra Pradesh and 80 in Telangana. Ten adult education centres would form one unit.

These centres would be financed by the University Grants Commission.

## International conference on education

The Union Government has drawn up a project in collabora-

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# CAMPUS NEWS

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in creating labour intensive projects but in creation of real capital as well as in the maximum utilisation of the existing real capital.

Delivering the valedictory address, Shri B. S. Ohja, Principal Secretary to the Haryana Chief Minister, commended the role of the Unit and said that the university was performing a vital service to the community by training civil servants in management and by making studies for administrative reforms. He suggested that the study reports prepared by the trainees should be examined by the concerned departments and the recommendations made in this behalf implemented.

Shri D. P. Verma, Registrar of the Panjab University said that the Public Administration was a living subject. It was both theoretic-

(iii) to develop research competency to carry out individual and/or institutional research work in the field of educational technology. The various topics discussed at the Summer Institute included concept of educational technology, theories of learning, multi-media approach, programmed learning, team teaching, system approach, etc.

At the conclusion of the Summer Institute, an evaluation of the various activities carried out during the course was made. Some participants suggested that topics like management of learning, resource based learning, research techniques in the educational technology should also be included and discussed.

Participants from Haryana, Rajasthan, Uttar Pradesh, Madhya Pradesh, Gujarat, Maharashtra, West Bengal, Kerala,

tion with the United Nations International Children's Emergency Fund to strengthen the teacher training institutions in the country. The programme will help teachers to improve their efficiency. The project is a part of the report which was presented to the International Conference on Education held recently in Geneva. The Indian delegation was led by Dr. P.C. Chunder, former Union Minister for Education, Social Welfare and Culture. The report among other statistics has recorded that 87.9 per cent of the total students population in universities and colleges in 1977-78 were pursuing undergraduate studies, nine per cent post-graduate studies, 1.1 per cent research and 1.9 per cent diploma or certificate courses. Courses in social sciences and humanities have been found popular claiming 43.7 per cent of the total enrolment.

The conference took stock of world trends in the field of education. The reports received at the conference from various countries showed that primary education remained a priority category.

### **UGC contemplates changes in grant policy**

The Administrative Staff College of India organised a six-day course on management of education system in Hyderabad recently. Speaking at the inaugural function, Dr. Satish Chandra, Chairman of the University Grants Commission said that the Commission was contemplating changes in its grant policy and the universities would be grouped in three categories, viz., developed, developing and yet to develop. The new policy would relate education to social change, reduce disparity among educational institutions and strengthen their administrative structure.

The UGC, Dr. Satish Chandra said, was in favour of the autonomy of colleges so that the functioning of the institutions could improve. He revealed that 50 per cent of the colleges were not viable. He was therefore of the view that the UGC could develop two postgraduate colleges in every

district to meet the needs of weaker sections of society. This would mean that 750 selected colleges in the country would be getting larger grant from the UGC.

The UGC Chief regretted that adequate importance was not being given to research work in the universities. He suggested that educational extension, community extension and adult education extension should be treated as equally important. Instead of educating a group of adults for a shorter spell, under adult education programme, villages should be adopted. There should be interaction with villagers for three years with a view to having the desired results of adult education.

### **Seminar on history of Meghalaya**

A two-day seminar on the History of Meghalaya was organised in Shillong recently by the State Council of Educational Research and Training. The seminar was inaugurated by Dr. B. Pakem, Education Minister of Meghalaya. In his address Dr. Pakem underlined the importance of the knowledge of history of the State. He was confident that the seminar would go a long way in helping the government to draw up a curriculum for the study of history in schools and colleges of Meghalaya. The material available on the history of Meghalaya relating to its politics and culture did not cover all aspects of history and Dr. Pakem hoped more material would be collected through sustained research for the study of the subject. He therefore urged the participants to come out with concrete suggestions and views to meet the aims and objectives of the seminar.

The Education Secretary, Mr. V.S. Jafa, said that the Board of Education of Meghalaya had launched a programme for the development of a new curriculum and the objective of the seminar would facilitate the writing of textbooks on the history of Meghalaya. He appealed to the participants to make conclusive recommendations so that the text-

books on the history of Meghalaya could be suitably developed.

### **Technology for small farmers**

Under its 'lab to land' programme for transfers of technology to small farmers the Indian Council of Agricultural Research proposes to assist 50,000 families belonging to small and marginal farmers and landless labour households during the golden jubilee year. The responsibility for effecting such transfer of technology to 44,000 families in different areas has already been entrusted to the various institutes of the ICAR, agricultural universities, Krishi Vigyan Kendras and voluntary agencies in this field.

As part of the golden Jubilee celebrations, a seven point programme has been drawn up by the Council. A 50-day international symposium on agricultural research and education systems for development and an international seminar on post-harvest technology and utilisation of potato have been planned under this programme.

The ICAR which is the apex body for coordinating agricultural research and extension education in the country has 32 research institutes and 54 all-India coordinated projects. In addition it also guides the 21 agricultural universities. Their combined efforts have contributed greatly to the record food grain production during the 1978-79 agricultural year.

### **Training programme for rural youth**

Under the National Scheme of Training Rural Youth for Self-employment, the Ministry of Agriculture and Irrigation, Government of India, has finalised a comprehensive scheme to train two lakhs rural youth every year in agriculture and allied fields. The Government proposes to launch this scheme on the 15th of August this year and it will cover rural areas in the country. The main thrust of the scheme will be on equipping rural youth with necessary skills and

technology to enable them to seek self-employment. The important part of the training programme is the identification of the various fields and sectors of activities where there is considerable scope for gainful self-employment. The trainees, after successful completion of their training, will get assistance from the Government for setting up their own enterprises.

In order to strengthen the essential infrastructure of training institutions run by the Central Government as well as the agricultural universities, 100 per cent grant-in-aid will be paid by the Central Government. For other institutions the expenditure would be shared by State and Central Governments on 50 : 50 basis.

### **Career guidance exhibition**

The Students Information Bureau and the Employment Information Guidance Bureau of the Madras University organised INFORMAX '79, an informative exhibition on careers, courses, science, technology, educational publications, etc. in Madras recently. Shri Prabhudas B. Patwari, Governor of Tamil Nadu, inaugurated the exhibition and Prof. G. R. Damadoran, Vice-Chancellor of the Madras University, presided over the inaugural function. The main objective of the exhibition is to guide students on further studies and on employment opportunities.

As part of the exhibition, seminars and counselling meetings were to be held and experts from different faculties invited to participate. Video-TV programme has also been organised by the American Centre to help the students going abroad.

The exhibition has been organised in collaboration with the Tamil Nadu Agricultural University, Anna University, CSIR, DST and other organisations.

### **PAU to start Home Science college in rural area**

Shri Prakash Singh Badal, Chief Minister of Punjab, laid the foundation stone of the Home

Science College, a constituent of the Punjab Agricultural University, recently at Kaoni in Faridkot district. Speaking on the occasion he said that the standard of education at the schools and colleges should be raised and the education imparted at these institutions should be made more purposeful. He laid special emphasis on women education and said that home science education was a boon for them as it helped in bettering their home management in a big way.

Shri S. P. Karkara, Registrar of the PAU, said this college was the first in Asia which had been opened in a rural area. This would also cater to the needs of the neighbouring districts like Ferozepur, Bhatinda and Sangrur.

### **Bsc Nursing course at AIIMS**

The All-India Institute of Medical Sciences, New Delhi, has started a 4-year BSc Nursing degree course. The course is open to girls only and candidates who have passed Class XII examination in English, Physics, Chemistry and Biology with at least 50% marks are eligible for admission to the course. A monthly stipend of Rs. 110-140 will be paid during the course.

### **Consultation on NSS**

A consultation on National Service Scheme sponsored by the Vishwa Yuvak Kendra was held recently in New Delhi to review the working of the scheme and to suggest measures to improve its operation in universities and colleges. The Group was of the view that NSS should be extended to cover those students who were either in +2 stage or were at similar level. It was thought that the University Grants Commission and Union Ministry of Education should also be involved in the responsibility of the administration and monitoring of the scheme. The Group agreed that much efforts should be put in to tone up the scheme in colleges and a number of measures were suggested for improvement. The need to offer different programmes and activities to cater

to various volunteers was also emphasised. The proceedings of the discussion will be placed before a larger forum representing the Ministry of Education, U.G.C., universities, colleges and students.

The meeting was attended among others by Prof. W. M. Kalmegh, Vice-Chancellor of Nagpur University; Dr. S. N. Ranade and Shri R.R. Singh of Delhi School of Social Work and Dr. D.C. Choudhry of the Department of Rural Development.

### **Community oriented studies at Anna Varsity**

Shri P. Sivalingam, Vice-Chancellor of Perarignar Anna University of Technology said recently in Madras that the University was planning to take up a pilot project for the supply of drinking water to coastal villages by desalinating sea water through solar energy. A multi-cell solar plant would be set up at Kovalam which was about 20 km. from the city. The University was also engaged in developing socially relevant projects for improving the efficiency of the bullock cart and training the slum dwellers in engineering trades to enable them to seek employment. A proposal will be presented to the State Government and the Petroleum Ministry on the ethanol car. The Vice-Chancellor said that there was also a proposal to start 3-year course in applied geology and PG diploma course in production management from the current session.

### **New combination of courses proposed at Panjab University**

The fifteen member committee constituted by Prof. R. C. Paul, Vice-Chancellor of Panjab University in its recent report has recommended that a candidate for the B.Sc course should be allowed to offer subject in arts besides two science subjects. The choice for the arts subjects has been restricted to economics, political science, public administration, psychology, sociology, education and philosophy. The

committee has further recommended that a candidate for the B.A. examination should be allowed to combine one science subject with English as a compulsory subject. The recommendations of the committee which was headed by Prof. T.N. Kapur, Dean of the University Instruction will be placed before the Academic Council of the university.

### **Expert body on academic standards in Punjab**

A committee of Principals of government and non-government colleges and vice-chancellors of various universities in Punjab has been formed to recommend to the state government improvements in educational standards at all levels. The announcement was made by the State Education Secretary at the conference of college principals held recently in Patiala.

Earlier Shri Sukhdev Singh Dhindsa, State Education Minister in his keynote address to the Conference, expressed the hope that educationists would project the achievements of Punjab with a national perspective. The State Director of Colleges outlined the objectives and guidelines of the conference which was attended by Principals of about 150 colleges.

### **Seminar on Persian sources of History**

An All-India seminar on unpublished Persian sources of Indian history will be held at Tonk (Rajasthan) in October this year. Reputed Arabic and Persian scholars and professors from all over the country are expected to participate in the seminar. The seminar is being sponsored jointly by the Indian Council of Historical Research and the Arabic and Persian Research Institute of the State.

### **Courses for child welfare**

The Centre of Continuing Education of Jammu University has started a one-week course on 'Happy Homes and Healthy Children' for the benefit of the mothers living in slums and rural areas. The participants to the

course will be given practical knowledge of nutrition, child care, health, sanitation and utilisation of waste material for decorating their homes.

The university also proposes to organise extension education programme in child development for young college girls and adult women for urban, rural and tribal areas. Preparation of literature for children on topics of scientific, historic, social sciences and seminars on 'Towards better understanding children' have also been planned as part of the celebration of International Child Year.

### **Agriculture service association**

Dr. D. N. Borthakur, Vice-Chancellor of Assam Agricultural University, inaugurated the annual general meeting of the Assam Agriculture Service Association in Jorhat recently. He said that the solution of the food problem needed the application of high level technology backed by appropriate policy. He urged the members of the Association to dedicate themselves for this great task and assist the Government in formulating policies.

### **NIEPA changes its constitution**

The National Staff College for Educational Planners and Administrators, an autonomous organisation set up by the Government of India, Ministry of Education, has been renamed as National Institute of Educational Planning and Administration (NIEPA). Its amended Constitution, Memorandum of Association and Rules and Regulations have been approved and registered with the Registrar of Societies under the Societies Registration Act, 1860. Its registered office continues to be located at 17-B Sri Aurobindo Marg, New Delhi-110016.

Prof. D.T. Lakdawala, Deputy Chairman of the Planning Commission has been appointed as the first President of the NIEPA Council.

### **ICMR selects candidates for medical research**

Under its Talent-Search Scheme to identify and attract young medical graduates towards a career in research, the Indian Council of Medical Research has this year selected sixteen medical graduates belonging to various medical colleges for its national biomedical research cadre.

The selected candidates will be given advanced training in areas of biomedical research during their postgraduate studies. After successful completion of their training they will be inducted into ICMR's research cadre.

### **Osmania introduces BSc in Genetics**

The Osmania University has decided to introduce Genetics at BSc level at Nizam College and University College for Women in combination with Zoology or Botany and Chemistry from the current academic session. To begin with the intake to the course would be limited to thirty students.

### **Bangalore organises special lecture series**

Prof. T.R. Jayaraman, Vice-Chancellor of Bangalore University, inaugurated the University's special lecture series for 1979-80. He hoped that the lecture series organised by the Prasanga would help students learn how to deal with modern topics. Twenty four lectures would be delivered by experts in the fields of medicine, social science, economics and science and would deal with 12 topics of contemporary relevance.

### **Varsity teachers' role in national reconstruction emphasised**

Addressing a joint meeting of different administrative sub-committees of the Himachal Pradesh University, the Vice-Chancellor, Dr. Ganpati Chandra Gupta emphasised the role of teachers in national reconstruction. He called upon teachers to apply their minds to every aspect of socio-economic problems of the country



and come forward with positive suggestions for their solutions. He pointed out that the formation of the sub-committees marked a radical change in the system of University administration. University administration, he said, aimed at promoting participation of teachers and students in the functioning of the University. The main functions allotted to these committees include academic affairs, students' welfare and discipline, games and sports and administrative reforms.

### **Doctors for villages**

In order to provide jobs to medical graduates and meet the acute shortage of medical personnel in rural areas, the Government of Andhra Pradesh has sponsored a new scheme of honorary rural medical practitioners. Under this scheme, medical graduates willing to practice in rural areas beyond 10 km from primary health centres would be paid a monthly stipend of Rs. 500 and given medicines worth Rs. 100.

### **New norms for appointment of college teachers**

The Executive Council of the Gauhati University has, on the recommendations of the Academic Council, accepted the suggestion of the PG Students' Union and fixed new norms regarding appointment of college teachers. According to the new norms the essential qualification for recruitment of teachers for the affiliated colleges would be a second class Master's degree with not less than 45 per cent marks in the subject with Honours in the subject or Distinction or 50 per cent marks in the aggregate of all papers at the degree level.

### **New courses at Patna Varsity**

The Patna University proposes to introduce a postgraduate course in Home Science and a diploma course in Library Science from the next academic session. The University Grants Commission has already conveyed its approval for setting up a postgraduate department of Home Science and the university proposes to start

teaching at the Patna Women's college in the first instance. With regard to the diploma course in Library Science, a detailed proposal has already been submitted to the Government and its approval is expected soon. There is also a proposal to start a diploma course in Journalism at the university.

### **German gift for Hyderabad Varsity**

Dr. Huebener, Consul General of Federal Republic of Germany, presented a Carl-zeiss research Microscope, costing about Rs. 1.6 lakhs, to the School of Life Sciences of the Hyderabad University on behalf of the Alexander Von Humboldt Foundation based in Bonn. Presenting the gift to the university Dr. Huebener said that the existing cordial relationship between India and Germany would continue particularly at the scientific level to mutual advantage.

### **Lucknow introduces semester system for LLM**

The Lucknow University has, for the first time, introduced semester system in the Law Faculty and a beginning is being made with the LLM course. Dr. L. N. Tandon, Dean of the Faculty, said that the present two-year LLM course will be divided into four semesters. He said that efforts would be made to restrict new admissions to the first year of LLM. The university, Dr. Tandon said, has decided to reduce the number of seats in LLM first year from 300 to 100 with effect from this year.

### **NCC adopts villages**

The National Cadet Corps (NCC) has taken up social service by adopting villages. Its 81 units throughout the country have so far adopted 800 villages, mostly belonging to poor and scheduled caste and backward families.

In Uttar Pradesh the NCC cadets had, among other things, built approach roads and dug drainage trenches. The girl cadets had taught village women cooking and personal hygiene. In Rajasthan the cadets associated themselves with the survey programme by

helping the district authorities to locate the poorest of the poor families in villages.

The NCC had also been running camps near agricultural universities to acquaint the cadets with all aspects of agriculture so that they would be in a better position to render social service in the adopted villages.

### **Special assistance to colleges in tribal areas**

The University Grants Commission has decided to provide special assistance to the colleges located in tribal areas. This assistance will be limited to colleges having at least one-third of students on rolls belonging to the scheduled tribes and would cover, among other things, appointment of qualified staff, remedial courses, educational extension programmes and buildings for hostels, libraries and class rooms.

### **Special casual leave for sportsmen**

The Syndicate of the Panjab University has decided to grant special casual leave to outstanding sportsmen upto a maximum of three months to enable them to participate in sports events and attend national and international level coaching camps.

### **New courses at Kurukshetra**

The Kurukshetra University proposes to introduce two new courses in polymer and medical chemistry during the current plan period. The university has already submitted the proposal to the University Grants Commission for its approval.

### **Shorter medical course in West Bengal**

The West Bengal Government proposes to introduce a three-year medical course to train workers for rural community service in view of non-availability of qualified doctors in the State. The course with a six-month internship would be available to students who had passed the high school examination. They would be asked to serve in the commu-

nity schemes for at least five years after completion of the course. They might be allowed to seek admission in the MBBS course later.

### **Greek Government scholarships**

The Union Education Ministry has invited applications for award of Greek Government Scholarships tenable in the field of archaeology, history of art and fine arts. Candidates having a master's degree with 60% marks or equivalent qualifications are eligible for the award. The applications on the prescribed forms will be entertained by the Department of Education of the Ministry in Shastri Bhawan, New Delhi-110001.

### **IITs to introduce 4-year degree course**

Dr. P.C. Chunder, former Union Education Minister said recently that the Council of Indian Institute of Technology had approved introduction of a four-year undergraduate course from 1981. During the transition period upto 1980-81 the Institutes will admit the 10+1 stage students to the five year course and 10+2 stage students to the second-year of the five year course on the basis of the joint entrance examination.

### **Youth programmes at Kurukshetra Varsity**

The NSS Committee of the

Kurukshetra University has decided to accord recognition to the students participating in the National Adult Education Programme. A student educating ten illiterates will be entitled to the University Level Certificate of merit.

Twenty-four colleges affiliated to the university organised recently 26 camps under the youth for rural reconstruction programme sponsored by the Ministry of Education and Social Welfare. The students participated in developmental projects including brick pavements, earth work and rodent and pest control.

### **Admission for engineering courses in Tamilnadu**

Shri C. Aranganayagam, Tamil Nadu Education Minister said recently in Tiruchi that academic excellence would not be the sole criteria for selection of candidates in engineering colleges. Certain departures from the routine had been made for the first time in the State. A candidate who had secured more than 95 per cent aggregate marks in Physics, Chemistry and Mathematics would not get the admission automatically. The Minister said the selection committee would take into account his attainments in co-curricular and extra curricular programmes and his talents in fine arts and cultural activities.

## **Classified Advertisements**

### **UNIVERSITY OF KERALA**

Trivandrum

No. Ad. DI. 2/48176

#### **NOTIFICATION**

*Applications are invited from qualified candidates for appointment to two posts of Professor in Geology on Rs. 1450-2050 in the University Department of Geology.*

Appointment to the posts notified will be made in accordance with section 6 sub section (ii) of Chapter II of the Kerala University Act of 1974.

According to this, one post of Professor is reserved for a member of the Ezhava Community. If no candidate from the Ezhava Community is considered suitable for this post, applicants from other reserved communities will be considered in accordance with the rules relating to communal rotation. If no candidate from any of the reserved communities found suitable, the post will be treated as open and filled up as such.

Further particulars and application forms can be had from the University Office on production of a receipt for Rs. 2/- remitted in any branch of SBT or on payment of the amount by crossed postal order payable to the Finance Officer, University of Kerala, Trivandrum. Request for application forms should be addressed to the Deputy Registrar (Admn.), University of Kerala, Trivandrum. Last date for receipt of applications is 27-8-1979.

**C.K. Devassy  
REGISTRAR**

## **Selection Procedures for Faculty Positions**

*(Continued from page 406)*

standing scientists, thinkers or creative writers are offered honorary Professorships/Readerships for five year periods; they would be generally available for seminar, etc. during this period. Third, a proportion of ten to twenty per cent of faculty position may be reserved for appointing creative writers, thinkers and scientists. Suitable norms should be involved also for their appointments.

The unambiguous guidelines for faculty recruit-

ment, as suggested above, may considerably help the cause of higher education. By this method the deliberate induction of inappropriate persons on the faculty—based on alleged interview performance alone—will be minimised. Moreover, convinced of the fairness in recruitment and promotional procedures the teachers will concentrate on their academic work and improve their performance by drawing themselves away from undesirable politics. □

# Conferences, Seminars & Workshops

August-October, 1979

Date	Subject	Venue	Sponsoring Body
1 Aug—10 Aug	Urban Project Management	New Delhi	Indian Inst of Public Administration
5 Aug—28 Sep	3 tier programme for management development	Agra	Ind. Inst. of Management, Admedabad
6 Aug— 7 Aug	Industrial productivity—the union role	Jabalpur	National Productivity Council
6 Aug—10 Aug	Administrative Management	Madras	National Productivity Council
6 Aug—10 Aug	Advanced Materials Management	Delhi	National Productivity Council
6 Aug—11 Aug	Management Information systems	Hyderabad	Administrative Staff College
6 Aug—11 Aug	Seminar on Management by objectives	Hyderabad	Administrative Staff College
6 Aug—11 Aug	Workshop on air, fuel and oil filters	Pune	Central Institute of Road Transport
9 Aug—12 Aug	Petroleum exploration and exploitation	Dhanbad	Indian School of Mines
12 Aug—14 Aug	Seminar on cooperation of teachers with College Librarians	Jabalpur	Kamta Prasad Guru Bhasha—Bharati
16 Aug—18 Aug	IFAC International Symposium on Computer applications in large scale power systems	Delhi	
16 Aug—18 Aug	Symposium on Molecular Spectroscopy	Annamalainagar	Annamalai University
17 Aug—18 Aug	Seminar on management of health services	Madras	National Productivity Council
20 Aug—22 Aug	Ecology for mining areas: a Seminar	Dhanbad	Indian School of Mines
22 Aug—23 Aug	Beneficiation and processing	New Delhi	National Productivity Council
24 Aug	Seminar on supervisory practices	Bangalore	National Productivity Council
27 Aug— 1 Sep	Management of industrial relations	Hyderabad	Administrative Staff College
28 Aug—29 Aug	Seminar on energy substitution	New Delhi	National Productivity Council
29 Aug	Construction of satellite earth station for Landsat reception	Hyderabad	National Remote Sensing Agency
Aug 1979	Matscience conference on Number theory	Mysore	Institute of Mathematical Sciences, Madras
3 Sep—15 Sep	11th Programme on advanced management & productivity	Srinagar	National Productivity Council
3 Sep—15 Sep	Materials Management	Hyderabad	Administrative Staff College
8 Sep— 9 Sep	Waste diffusion in aquatic/marine environment	Bombay	I.I.T.
10 Sep—11 Sep	Seminar on corrosion prevention & control	Kanpur	National Productivity Council
10 Sep—11 Sep	Seminar on energy management	Ranchi	National Productivity Council
10 Sep—12 Sep	Syposium on role of induced mutation in crop improvements	Hyderabad	Osmania University
15 Sep—16 Sep	Non-destructive testing of concrete	Bombay	I.I.T.
15 Sep—16 Sep	Seminar on Engineering the future for the benefit of mankind	Hyderabad	Institution of Engineers
17 Sep—22 Sep	Leadership and organisation development	Hyderabad	Administrative Staff College
22 Sep—23 Sep	Workshop on bearings for industry	Bombay	I.I.T.
24 Sep—26 Sep	Seminar on Pharmaceutical marketing	Goa	National Productivity Management
25 Sep—29 Sep	Xth International symposium on multiparticle dynamics	Goa	Tata Institute of Fundamental Research
27 Sep—29 Sep	Modern management concepts	Jaipur	National Productivity Council
Sep 1979	Seminar on Resource Mobilisation	Indore	University of Indore, Dept of Eco.
Sep/Oct 1979	Seminar on reliability of heavy electrical equipment	Bangalore	Institution of Engineers (India)
Sep 1979—Jan 80	Diamond Jubilee celebrations of the Institution of Engineers		Institution of Engineers
1—11 Oct	Workshop on new techniques in neuro sciences with special reference to neurophysiology of higher nervous activity	Bangalore	National Institute of Mental Health and Neurosciences
2 Oct—11 Oct	Management of R&D systems	Hyderabad	Administrative Staff College
2 Oct—13 Oct	Course on advanced computer systems	Hyderabad	Administrative Staff College
13 Oct—14 Oct	Analysis and synthesis of mechanisms	Bombay	I.I.T.
15 Oct—17 Oct	Hydraulic mining: a Seminar	Dhanbad	Indian School of Mines
23 Oct—20 Nov	Hospital administration course	Delhi	National Inst of Health & Family Welfare

Date	Subject	Venue	Sponsoring Body
27 Oct—28 Oct	Industrial hydraulics and hydraulic controls	Bombay	I.I.T.
27 Oct—30 Oct	Seminar on time change and causality in Indian philosophy	Tirupati	Sri Venkateswara University
29 Oct— 3 Nov	Management of Education systems	Hyderabad	Administrative Staff College
31 Oct— 2 Nov	Seminar on the impact of Islam on the West	Aligarh	A.M.U., Dept of Islamic Studies
Oct 1979	Seminar on Research Promotion and innovations in evaluation and methodology in physical education	Gwalior	Lakshmi Bai National College of Physical Education
Oct 1979	Symposium on sintering products	Bombay	Dept of Atomic Energy & Bhabha Atomic Research Centre
Oct 1979	Workshop on scientific and technical manpower for R&D	Hyderabad	Dept of Science & Technology, and Institution of Engineers
Oct 1979	Workshop on Social Dimension of Science & Technology	Shillong	N.E. Hill University

## Subject Index

Date	Subject	Venue	Sponsoring Body
<b>AGRICULTURE</b>			
10 Sep—12 Sep	Symposium on role of induced mutation in crop improvements	Hyderabad	Osmania University
<b>COMPUTERS &amp; MATHEMATICS</b>			
2 Oct—13 Oct	Course on advanced computer systems	Hyderabad	Administrative Staff College
16 Aug—18 Aug	IFAC International Symposium on computer applications in large scale power systems	Delhi	
Aug 1979	Matscience conference on number theory	Mysore	Institute of mathematical Sciences, Madras
<b>ECONOMICS</b>			
Sep 1979	Seminar on Resource Mobilisation	Indore	University of Indore, Dept of Economics
<b>EDUCATION</b>			
29 Oct— 3 Nov	Management of Education systems	Hyderabad	Administrative Staff College
12 Aug—14 Aug	Seminar on cooperation of teacher with college librarians	Jabalpur	Kamta Prasad Guru Bhasha—Bharati
Oct 1979	Seminar on Research promotion and innovations in evaluation and methodology in physical education	Gwalior	Lakshmi Bai National College of Physical Education
<b>ENERGY SOURCES</b>			
10 Sep—11 Sep	Seminar on energy management	Ranchi	National Productivity Council
28 Aug—29 Aug	Seminar on energy substitution	New Delhi	National Productivity Council
<b>ENGINEERING</b>			
13 Oct—14 Oct	Analysis and synthesis of mechanisms	Bombay	I.I.T.
Sep 1979—Jan 1980	Diamond Jubilee celebrations of the Institution of Engineers		Institution of Engineers
13 Oct—28 Oct	Industrial hydraulics and hydraulic controls	Bombay	I.I.T.
15 Sep—16 Sep	Non-destructive testing of concrete	Bombay	I.I.T.
10 Sep—11 Sep	Seminar on corrosion prevention and control	Kanpur	National Productivity Council
15 Sep—16 Sep	Seminar on Engineering the future for the benefit of mankind	Hyderabad	Institution of Engineers
Sep/Oct 1979	Seminar on reliability of heavy electrical equipment	Bangalore	Institution of Engineers (India)
Oct 1979	Symposium on sintering products	Bombay	Dept of Atomic Energy & Bhabha Atomic Research Centre
6 Aug—11 Aug	Workshop on air, fuel and oil filters	Pune	Central Inst of Road Transport
<b>INDUSTRY &amp; LABOUR</b>			
6 Aug— 7 Aug	Industrial productivity—the union role	Jabalpur	National Productivity Council

Date	Subject	Venue	Sponsoring Body
27 Aug—1 Sep	Management of industrial relations	Hyderabad	Admin Staff College
22 Sep—23 Sep	Workshop on bearings for industry	Bombay	I.I.T.
<b>MANAGEMENT</b>			
22 Aug—23 Aug	Beneficiation and processing	New Delhi	National Productivity Council
3 Sep—15 Sep	11th Programme on advanced management and productivity	Srinagar	National Productivity Council
17 Sep—22 Sep	Leadership and organisation development	Hyderabad	Admin Staff College
6 Aug—11 Aug	Management information systems	Hyderabad	Admin Staff College
27 Sep—29 Sep	Modern management concept	Jaipur	National Productivity Council
6 Aug—11 Aug	Seminar on Management by objectives	Hyderabad	Admin Staff College
24 Aug	Seminar on supervisory practices	Bangalore	National Productivity Council
5 Aug—28 Sep	3 tier programme for management development	Agra	Indian Inst of Mangement, Ahmedabad
<b>MATERIAL MANAGEMENT</b>			
6 Aug—10 Aug	Advanced Materials Management	Delhi	National Productivity Council
3 Sep—15 Sep	Materials Management	Hyderabad	Admin Staff College
<b>MEDICINE &amp; PUBLIC HEALTH</b>			
23 Oct—20 Nov	Hospital administration Course	Delhi	National Inst of Health & Family Welfare
17 Aug—18 Aug	Seminar on management of Health services	Madras	National Productivity Council
1 Oct—11 Oct	Workshop on new techniques in neurosciences with special reference to neurophysiology of higher nervous activity	Bangalore	National Inst of Mental Health and Neurosciences
<b>MINING AND MINERALS</b>			
20 Aug—22 Aug	Ecology for mining areas: a Seminar	Dhanbad	Indian School of Mines
15 Oct—17 Oct	Hydraulic mining: a Seminar	Dhanbad	Indian School of Mines
9 Aug—12 Aug	Petroleum exploration and exploitation	Dhanbad	Indian School of Mines
<b>PHARMACY &amp; PHARMACEUTICALS</b>			
24 Sep—26 Sep	Seminar on Pharmaceutical marketing	Goa	National Productivity Management
<b>PHILOSOPHY</b>			
27 Oct—30 Oct	Seminar on time change and causality in Indian philosophy	Tirupati	Sri Venkateswara University
<b>PHYSICS &amp; CHEMISTRY</b>			
16 Aug—18 Aug	Symposium on Molecular spectroscopy	Annamalainagar	Annamalai University
25 Sep—29 Sep	Xth International symposium on multiparticle dynamics	Goa	Tata Inst of Fundamental Research
<b>PUBLIC ADMINISTRATION</b>			
6 Aug—10 Aug	Administrative Management	Madras	National Productivity Council
<b>RELIGION</b>			
31 Oct—2 Nov	Seminar on the impact of Islam on the West	Aligarh	A.M.U., Dept of Islamic Studies
<b>RESEARCH AND INFORMATION</b>			
2 Oct—11 Oct	Management of R & D systems	Hyderabad	Admin Staff College
Oct 1979	Workshop on scientific and technical manpower for R & D	Hyderabad	Dept of Science & Technology & Institution of Engineers
<b>SCIENCE &amp; TECHNOLOGY</b>			
29 Aug	Construction of satellite earth station for Landsat reception	Hyderabad	National Remote Sensing Agency
Oct 1979	Workshop on Social Dimension of Science and Technology	Sillong	N.E. Hill University
<b>URBAN DEVELOPMENT</b>			
1 Aug—10 Aug	Urban Project management	New Delhi	Indian Inst of Public Administration
<b>WASTE UTILISATION</b>			
8 Sep—9 Sep	Waste diffusion in aquatic/marine environment	Bombay	I.I.T.

Further details can be had from :  
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## A list of Doctoral Theses Accepted by Indian Universities

### SOCIAL SCIENCES

#### Anthropology

1. Majumdar, Krishna. Socio-psychoeconomic problems among the hospital patients of West Bengal. University of Calcutta.

2. Walimbe, Subhash Ramchandra. Bio-genetical affinities of the Kolis of Maharashtra. University of Poona.

#### Sociology

1. Tribhuvan, Ushadevi David. A study of educated scheduled caste women in an urban setting. University of Poona.

#### Political Science

1. Datta, Amita. Some aspects of urban development administration in Metropolitan Calcutta. University of Calcutta.

2. Jain, Ashokkumar Vasantlal. Four general elections in India with special reference to Maharashtra politics. University of Poona.

2. Singh, Gupteshwar Prasad. Contending approaches to international relations. Magadh University.

4. Vidya Bhushan. Framing of Jammu and Kashmir's constitution. University of Jammu.

#### Economics

1. Kshirsagar, Chintaman Laxman. Storage of agricultural produce: A case study in Maharashtra. University of Poona.

2. Kulkarni, Balkrishna. Narayan Crop loan operations of organized credit institutions with particular reference to potato cultivation. University of Poona.

3. Raipuria, K.M. Comparative cost and social prices in export planning in India: A case study of cotton textiles. Jawaharlal Nehru University.

4. Saxena, R.D. Personnel management in Irrigation Department of M.P., India. Bhopal University.

5. Sharif Mohammed. Trade, growth and income equality: A case study of India. University of Delhi.

6. Thirunavukkarasu, M. A study of the borrowings of the scheduled commercial banks from the Reserve Bank of India under the operation of the net liquidity ratio system. University of Madras.

7. Thomas, Jose. Economics of rubber plantation industry in Kerala. University of Cochin.

#### Education

1. Bhat, Abdul Hamid. To study (investigate) learning as a function of social interaction among the learners and to derive the laws of interaction in relation to learning. University of Jammu.

2. Dunakhe, Arwind Ranganath. An investigation into the reading interests and habits of the first year of the degree course Marathi students studying in colleges affiliated to the University of Poona. University of Poona.

#### Commerce

1. Pitchaiah, Neelakantam. Coastal shipping in India. University of Saugar.

2. Sahu, Promod Kumar. Trend in fixed investment of joint stock companies in Orissa. Berhampur University.

#### Management

1. Gupta, Sushil Kumar. Application of quantitative techniques in production scheduling. University of Delhi.

2. Shaikh, Taiyab Shahabuddin. Personnel policies and administration in urban banks: A study of twenty selected urban banks from Bombay and Poona. University of Poona.

#### Home Science

1. Sivaswami, Jaya. Role of trace elements in production of aflatoxins. University of Delhi.

### HUMANITIES

#### Philosophy

1. Kelkar, Meena Arvind. A critical examination of Spinoza's concepts of substance, attributes and modes. University of Poona.

#### Linguistics

1. Shetty, Ramkrishna, T. Koraga grammar: A descriptive study of a Dravidian dialect. University of Poona.

2. Singh, Ningomba Mangi. Descriptive grammar of Maring. University of Poona.

3. Verma, Dwarika Prasad. Fatehpur zila ka gramin shabdavali ka bhashavaigyanik adhyayan. University of Saugar.

#### Literature

##### English

1. Dhayagude, Suresh Vyankatesh. A comparative study of some aspects of Western and Indian poetics. University of Poona.

2. Jayaprakashnarayan Reddy, Dandu. Nature in Ernest Hemingway's novels. Andhra University.

3. Ramachandra, Panangi Palli. Quest for fulfilment in the novels of Patrick White. Andhra University.

4. Santosh Bala. A study of W.B. Yeats's use of symbols with particular reference to the Dancer. University of Delhi.

5. Sripathi, M.K. Social criticism in the poetry of E.E. Cummings. Madurai Kamaraj University.

6. Varadachari, C.D. Literary criticism of Herbert Read. Sri Venkateswara University.

##### Sanskrit

1. Chattopadhyay, Basanti. Development of the figures of speech based on karyakaranabhinaya. University of Calcutta.

2. Date, Ranjana Shrikant. Domestic rites of the Satya-sadha School: A comparative study. University of Poona.

3. Prabhat Kumar. Bhel samhita: A critical study. University of Jammu.

4. Shakuntla. Study of the Pancadasj. University of Delhi.

5. Surendra. Jaganath evam Appayadikshita ka sahitya Shastriya matabhedon kee mimamsa. University of Delhi.

##### Hindi

1. Goel, Anil. Swatantryottar Hindi kahani sahitya mein nari kee samajik bhumika. University of Jammu.

2. Gupta, Subash Kumari. Ritikalin muktak sahitya mein shringaretar prevrittian. University of Jammu.

3. Mathur, Uma. Prasad sahitya mein prem. University of Delhi.

4. Pandita, Usha. Kashmiri aur Hindi bhasha ke pratyayon ka tulnatmak adhyayan. University of Jammu.

5. Sachdev, Gautam Dev. Premchand kee kahanion kee shilpvidhi. University of Delhi.

6. Tandon, Neerja. Hindi samiksha mein ras sidhant ka kramik vikas. Kumaun University.

##### Urdu

1. Akhtar, Tehmina. Ali Abbas Hussaini: Life and works. University of Jammu.

##### Bengali

1. Bandyopadhyay, Ajay Kumar. Pranayayasrita Bangla gitikacitayprachya-paschatya oitizyer prabartan; Unissatakar ditiardha. University of Calcutta.

2. Bhattacharyya, Triptikumar. Bangla sahityer bastu-tantrik bisleshan madhyayug. University of Calcutta.

##### Tamil

1. Rajendran, Shankaravelayuthan. Syntax and semantics of Tamil verbs. University of Poona.

##### Telugu

1. Manoja, C. A study of Kuchimanchi Timmakavia acca Telugu kavyas. University of Madras.

2. Saryavathy, Kokkonda. Telugu kavyamula yandali prakriti varnanalu: Vimarsanatmaka parisilanamu. Andhra University.

##### Geography

1. Jeena, Laxmi. Land utilization in the District Almora. Kumaun University.

2. Shrivastava, Durga Sharan. Suburban development in Madhya Pradesh: A case study of class I cities of the state. University of Saugar.

##### History

1. Chatterjee, Amar Nath. Chaitanya's impact on medieval Indian society. University of Delhi.

2. Ganguli, Sumitra. Third Anglo-Maratha war, 1817-1818: Strategy and tactics. University of Poona.

3. Haranatha Babur, Turumella Venkata. Right Honourable Sir Akbar Hydari, 1849-1924: A political biography. University of Poona.

4. Johnson, Yovan, Richard. Central administration of Travancore, 1888-1949. University of Poona.

5. Kajale, Mukund Dagadushet. Bioarchaeology of the Ghod Valley, Maharashtra. University of Poona.

6. Krishnamurti, V.M. Corporate life in medieval Tamilnad. Madurai Kamaraj University.

7. Mathpal, Yashodhar. Prehistoric rock paintings of Bhimbetka, Central India. University of Poona.

## A list of select articles culled from Periodicals received in AIU library during July, 1979

### EDUCATIONAL PHILOSOPHY

Apple, Michael W. "Ideology, reproduction, and educational reform." *Comparative Education Review* 22(3); Oct 78: 367-87.

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Dresch, Stephen P. "Dynamics of growth and decline". *New Directions for Higher Education* (19); Autumn 77: 17-31.

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Trotman—Dickenson, D.I. "Use of data response in the teaching of economics". *British Journal of Educational Technology* 9(3); Oct 78: 201-4.

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Duchastel, Pinlippe C. "On being an educational technologist". *British Journal of Educational Technology* 9 (3); Oct 78: 164-6.

### EVALUATION

Qartwright, G.F. and Derevensky, J.L. "Development of computer-assisted testing as an adjunct to traditional instructional process in educational psychology". *British Journal of Educational Technology* 9(3); Oct 78: 166-9.

Harper, Erika S. "Essay examinations are undemocratic". *University News* 17(13); 1 July 79: 355, 357.

Lee Lai-min, Paul. "Effects of reducing the number of options on multiple-choice items". *Educational Evaluation Research International Newsletter* (19); Dec 78: 10-12.

Majumdar, S.K. "Comparative study of the 'high creative' and 'high IQ' pupils with respect to their achievement in science". *Educational Evaluation and Research International Newsletter* (19); Dec 78: 1, 5-7.

Marjoram, D.T.E. "Assessment: Why, what and how". *Educational Evaluation Research International Newsletter* (19); Dec 78: 15-19.

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Natarajan, V. "Universities and national development: A status report and future projections in examination reforms". *University News* 17(12); 15 June 79: 325-31.

Rogers, W. Todd, etc. "Assessment of non response bias in sample surveys: An example from national assessment". *Journal of Educational Measurement* 14(4); Winter 77: 297-311.

Saha, S. "Educational evaluation: Its role in individualised instruction". *Educational Evaluation and Research International Newsletter* (19); Dec. 78: 7-9.

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### ECONOMICS OF EDUCATION

Mehta, Pradeep Kumar. "Education and assistance: A case-study of Government College, Swai Madhopur (Rajasthan)". *Journal of Higher Education (Delhi)* 3(3); Spring 78: 390-9.

Sobel, Irvin. "Human Capital revolution in economic development: Its current history and status". *Comparative Education Review* 22(2); June 78: 278-308.

### PROFESSIONAL EDUCATION

Agrawala, S.K. "Note on continuing legal education". *Journal of the Bar Council of India*. 7(2); Apr-June 78: 252-7.

### COMPARATIVE EDUCATION AND COUNTRY STUDIES

Brahm Prakash. "Demand for and financing of higher education in Canada". *Journal of Higher Education (Delhi)* 3(3); Spring 78: 345-55.

Coombs, Fred S. "Politics of educational change in France". *Comparative Education Review* 22(3); Oct 78: 480-503.

## UNIVERSITY OF DELHI

Advt. No. Estab. IV/60/79

Dated 16th July, 1979

Applications on the prescribed form are invited for the following posts :

Department	Designation
Geography	: One Reader
Library Science	: One Reader
Faculty of Music	: Part-time Tutors (Hindustani Music)
Faculty of Law	
(i) Campus Law Centre	: One Lecturer (Temp. upto 19.10.1980)
(ii) Law Centre No. 1	: One Lecturer Part-time Lecturers-2
(iii) Law Centre No. 2	: Part-time Lecturer-1
Buddhist Studies	: One Lecturer in Pali, One Lecturer (Tibetology and Buddhist Philosophy) (Temporary against leave vacancy upto 6-6-1981)
Operational Research	: One Lecturer
Education (C.I.E.)	: One Lecturer in Education (Art)
Engineer's Office	: One Assistant Engineer (Civil) (Temporary but likely to continue)
Computer Centre	: Two Console Operators (One each reserved for Scheduled Caste and Ex-serviceman)

Note: Candidates of general category can also apply. The general candidates would, however, be considered only if no suitable Scheduled Caste/Ex-serviceman candidates are available for appointment to the vacancy reserved for them.

Central Office : Clerk-typists (English)  
Steno-typists (English)

Note:- Certain percentage of the total number of vacancies for the posts of Steno-typists/Clerk-typists is reserved for Scheduled Caste/Scheduled Tribes and Ex-serviceman :

### The scales of pay of the posts are:

Reader—Rs. 1200-50-1300-60-1900.

Lecturer—Rs. 700-40-1100-50-1600.

### Part-time Lecturer in Law/Part-time Tutors in Music.

Rs. 500/- p.m. (fixed) for work-load ranging from 3-6 hours per week.

Rs. 750/- p.m. (fixed) for work-load ranging from 7-10 hours per week.

### Note

(i) Part-time teachers in Law will be appointed initially for a period not exceeding one academic year which could be renewed after each academic year with the total tenure of appointment of an incumbent not exceeding 5 years.

(ii) Part-time Tutor in Music will be appointed initially for a period of 5 years.

Asstt. Engineer (Civil)—Rs. 650-30-740-35-810-EB-35-880-40-1000-EB-40-1200.

Console Operator—Rs. 550-25-750 EB-30-900.

Steno-typist—Rs. 330-10-380-EB-12-500 EB-15-560.

Clerk-typist — Rs. 260-6-290-EB-6-326-8-366-EB-8-390-10-400.

All posts (except Part-time teachers) carry D.A., C.C.A. and H.R.A. as admissible under the rules in force in the University from time to time.

### ESSENTIAL QUALIFICATIONS FOR Readership in Library Science

- A good academic record with first or high second class Master's degree in Library Science or Library and Information Science or equivalent qualifications.
- 7 years' teaching experience to post-graduate classes in Library Science preferably at the Master's level.

### OR

5 years' teaching experience to the Post-graduate classes in Library Science plus five years administrative experience in a responsible professional capacity.

**Readerships:** (other than Library Science).

Good academic record with first or high second class Master's Degree in the subject concerned with a Doctor's Degree or equivalent published work.

Independent published work (in addition to the published work mentioned above) with atleast 5 years' teaching experience in Honours/Post-graduate classes essential.

**Lectureships** (other than Law and Education)

### Essential

Good academic record with a first or

high second Class Master's Degree or an equivalent degree of a foreign University in the subject concerned.

### Note

Second Class would mean atleast 50% marks in the subject or equivalent grade.

### Desirable

(i) A Doctor's Degree or evidence of Research work of equivalent standard in the subject concerned. (ii) Teaching experience of Degree / Post-graduate Classes. Provided if a teacher is not a Ph.D./M. Phil./M.Litt. at the time of his/her appointment and does not qualify himself herself for the award of Ph.D./M.Phil./M.Litt. Degree from a recognised University in a subject which is being taught by him/her within a period of five years from the date of his/her appointment or does not give evidence of research work within that period in the subject concerned, he/she shall not be entitled to any future increments after expiry of the said period of five years till such time he/she fulfils the above mentioned requirements.

### Lectureship in Law

Consistently good academic record with a first or high second Class (B+) Master's Degree in the Law OR an equivalent Degree of a foreign University in the subject concerned.

### Explanation

Consistently good academic record would mean overall record of all assessments throughout the academic career leading to the Master's Degree should be atleast B+ or high second Class.

### Part-time Lecturer in Law

Good academic record with first or high second class Bachelor's or Master's Degree in Law, practice at the Bar for atleast 5 years of which atleast 3 years should have been in the Trial Courts. Previous teaching experience desirable but not essential.

### Part-time Tutors in Music

Good academic record with first or high second class Master's degree in Music and proficiency in performance. Previous teaching experience is desirable.

### Lectureship in Education (Art)

Good academic record with a first or high second class Master's degree in Education or equivalent degree/diploma in Art, Teacher-Education and the first or second class Master's degree in Fine Arts or equivalent Degree/Diploma with specialization in Drawing and Painting or Sculpture or Graphics.

### Assistant Engineer (Civil)

Degree in Civil Engineering of a recognised University and two years' experience after graduation.

Diploma in Civil Engineering from a recognised Institution with minimum experience of 7 years.

The candidates should be able to design R.C. work efficiently.

### Console Operators

- (a) Atleast a second class (not less than 50% marks in the aggregate). Master's Degree in Mathematics, Statistics, Econometrics, Operational Research or Physics;

OR

Atleast a second class not less than 50% marks in the aggregate) Bachelor's degree in Engineering from a recognised Institution, and

- (b) Familiarity with Console Operation.

### Steno-typist

Matriculation or equivalent qualification with proficiency in Type-writing at a speed of not less than 35 w.p.m. and proficiency in Shorthand at a speed of not less than 80 w.p.m.

### Note

Candidates for the posts of Steno-typists will be required to appear and qualify in the tests in General English, Shorthand and Typewriting to be held by the University.

### Clerk-typist

Matriculation or equivalent qualification with minimum 35 w.p.m. in English Typewriting.

### Note

Candidates will be required to appear and qualify in the tests in General English and typewriting to be held by the University.

### SPECIAL/DESIRABLE QUALIFICATIONS FOR

#### Readership in Library Science

- (i) Ph.D. Degree or independent published work in high academic standard.
- (ii) Ability to guide research in the subject.

#### Readership in Geography

Specialization in any Branch of Human or Economic Geography.

#### Part-time Tutors in Music

An eminent performing musician having a wide knowledge and practical scholarship combined with ability to impart training upto Post-graduate and further higher levels.

#### Lectureship in Law (C.L.C.)

Candidate having teaching experience of Taxation will be given preference.

#### Lectureship in Law (L.C. No. 1)

Teaching experience and/or specialization in Jurisprudence. Administrative Law, Constitutional Law, Labour Law or Taxation.

#### Part-time Lecturers in Law (L.C. No. 1)

Teaching experience or practice in Labour Law, Tax Law, Military Law, Law relating to Trade Marks, Copyrights and Patents, Limitation and Arbitration and Civil Procedure.

### Buddhist Studies

#### Lectureship in Pali

- (a) Ability to teach Pali through the medium of English and/or Hindi.
- (b) Consistently good academic record in Pali Language and Literature.

#### Lectureship in Buddhist Studies (Tibetology & Buddhist Philosophy)

- (a) Ability to teach Tibetology and Buddhist Philosophy through the medium of English and/or Hindi.
- (b) Consistently good academic record in Buddhist Philosophy and Tibetology.
- (c) Evidence of knowledge of Sanskrit or Pali or Chinese.

#### Lectureship in Education (Art)

- (i) Minimum three years' teaching experience of Teacher-Education/School/Degree/Post-graduate classes.
- (ii) Doctor's degree or Evidence of Research work of equivalent standard.

### Console Operators

Knowledge of the elements of Computer Programming.

### Clerk-typists

Persons having experience and knowledge of operating P.A.B.X. will be preferred.

### Note

Telephone Operators will be drawn from the cadre of Clerk-typists and they will be entitled for a special pay of Rs. 20/- p.m. for functioning as Telephone Operator.

The prescribed application form can be had from the Information Office of the University either personally or by sending a self addressed envelope (size 13 cm×28 cm.) with postage stamps worth Rs. 2.85.

The candidates will have to produce the original documents relating to their age, qualifications, experience, etc. at the time of interview.

Applications (separate for each post) accompanied by attested copies of Degrees, other certificates, marksheets, published research articles, etc. should reach the undersigned not later than 16th August, 1979.

### Note

1. It will be open to the University to consider the names of suitable candidates for teaching posts who may not have applied. Relaxation of any of the qualifications may be made in exceptional cases, in respect of all teaching posts on the recommendation of the Selection Committee.
2. Canvassing in any form by or on behalf of the candidates will disqualify.
3. Candidates from outside Delhi, for teaching posts only called for interview will be paid to and fro single second class rail fare.
4. The University reserves the right not to fill up any of the vacancies advertised, if the circumstances so warrant.

R.V. Raman

REGISTRAR (Offg.)

## MAHARASHTRA ASSOCIATION FOR THE CULTIVATION OF SCIENCE

LAW COLLEGE ROAD, PUNE-411004

Applications are invited for the following posts:

Name of the Post	No. of posts	Qualifications
Scientist C (Rs. 1100-1600) in Chemistry	1	Ph.D. in Chemistry with research publications and experience in writing scientific programmes, guiding post-graduate research & teaching and in laboratory organisation.
Scientist B (Rs. 700-1300) One each in Botany Mycology, Microbiology and Geology.	4	Ph.D. in the subject with research Experience and publications.
Senior Scientific Assistant (Rs. 550-900) in Mycology	1	M.Sc. in Botany/Mycology with research experience and publications.  Ph.D. desirable.

All the posts are temporary and carry dearness and other allowances as admissible from time to time. Preference will be given to suitable S.C./S.T. candidates, if available. Applications stating qualifications, experience, age, publications etc. should reach the undersigned within 15 days.

C.B. Deodikar  
DIRECTOR

## MEERUT UNIVERSITY MEERUT

Applications are invited for one permanent post of Professor of Psychology in the grade of Rs. 1500-60-1800-100-2000-125/2-2500.

### MINIMUM QUALIFICATIONS

1. (a) Doctorate in the subject of study concerned or a published work of a high standard in that subject; and

(b) Consistently good academic record (that is to say, the overall record of all assessments throughout the academic career of a candidate), with first class or high second class (that is to say, with an aggregate of more than 54% marks) Master's Degree in the subject concerned or equivalent degree of a foreign University in such subject.

2. Atleast 5 years' research/teaching experience in a University or a recognised Institution and should have distinguished himself as a researcher and should have competence to give post M.A. Courses and guide research.

Where the Selection Committee is of opinion that the research work of a candidate, as evidenced either by his thesis or by his published work, is of a very high standard, it may relax any of the requirements specified in No. 1(b).

Benefits of Provident Fund available as admissible under the rules. Period of probation is one year.

Other things being equal, preference will be given to Scheduled Caste Tribe candidates who are considered fit. Such candidates should indicate in their application that they belong to Scheduled Caste Tribe and attach Certificate to this effect from the District Magistrate of the District to which they belong. No other Certificate for this purpose will be entertained.

Applications on the prescribed form, available on request (accompanied with a self-addressed envelope of size 23 cm x 10 cm and stamped for Rs. 0.50) free of cost, from the Office of the Registrar, with relevant testimonials, publications etc., accompanied by a Bank Draft of Rs. 7.50 payable to the Finance Officer, Meerut University, Meerut, should reach the Registrar, Meerut University, Meerut, by 31st August 1979. The candidates who are in service must send their applications through proper channel. Application forms to out-station candidates will be issued by post up to 20th August 1979.

V.B. Bansal  
REGISTRAR

## UTKAL UNIVERSITY

### Advertisement

No. Estt. II (Comp. 2) 14864 79

Dated 17-7-79

Applications in the prescribed form are invited from the intending candidates for the posts of (i) System Manager and (ii) System Engineer for the Computer Centre of the University. The posts are temporary till 31.3.1981 but are likely to continue further.

Five copies of application forms will be supplied to the candidates from the office of the undersigned in person on payment of Rs. 5.35 (including Sales Tax) or by post on receipt of a crossed Indian postal order worth Rs. 7.50 paise payable to the Finance Officer, Utkal University, Vani Vihar, Bhubaneswar-4. No money order will be entertained for the purpose.

### System Manager Qualification

1st Class Post-Graduate Qualification in Computer Science or Physics with experience in computer programming and research is essential.

5 years practical exposure in the field of computer study/management is desirable.

### Scale of Pay

Rs. 1100-50-1600/-

### System Engineer Qualification: Essential

A master's degree in Science or a Bachelor's Engineering Degree followed by atleast 5 years experience as a System Analyst.

### Desirable

Post-graduate Diploma or Degree in Computer Science.

### Scale of Pay

Rs. 1100-50-1600/-

The scale of pay of Rs. 1100-1600/- for both the posts prescribed is subject to the approval of the Chancellor of the University.

Candidates are required to submit the following documents along with their application:

- attested copies of certificates, marks of all examinations passed by them.
- testimonials about their conduct, character details about their date of birth, place of residence and experience in the line.
- Caste certificate from the competent authority in case of S.C. and S.T. candidates.

Candidates who are already in service are required to apply through proper channel but the advance copies (four) should reach the undersigned by the last date specified. The last date for receipt of the application is 13.8.79. No application will be entertained after the due date.

S.K. Panda  
REGISTRAR

## SRI VENKATESWARA UNIVERSITY

### TIRUPATI

Advertisement No. EII-2 1979 (2) dated 11.7.1979

Applications are invited in the prescribed form for the following posts in the University Service on or before 16.8.1979

S.No	Post & Department	No. of posts	Specialisation
<b>I. S.V.U. College of Arts &amp; Sciences, Tirupati</b>			
1.	Professor in Anthropology	One	Physical/Social
2.	Lecturer in Psychology	One	Community Psychology
3.	Lecturer in Sanskrit	One	Pali/Prakrit
<b>II. S.V.U. Post-Graduate Courses, Kurnool</b>			
1.	Reader in Statistics	One	(Quality Control & Operations Research preferred)

### Scale of Pay

1. Professor: Rs. 1500-60-1800-100-2000-125/2-2500

2. Reader: Rs. 1200-50-1300-60-1900

3. Lecturer: Rs. 700-40-1100-50-1600

All the above posts carry D.A. etc., at the University rates. There will be reservation for S.C./S.T./B.C. candidates for "Lecturers" posts according to U.G.C./State Government guidelines.

The prescribed application form and other particulars can be had from the Registrar, Sri Venkateswara University, Tirupati-517502, Andhra Pradesh, on payment of Rs. 5/- either by Andhra Bank Challan or State Bank of India Challan or Croessed \*Indian Postal Or-

ders of the said value drawn in favour of the Registrar, Sri Venkateswara University, Tirupati 517502, Andhra Pradesh (\*Payable at the S.V.U. Campus Post Office, Tirupati).

The University reserves to itself the right to increase or decrease the posts, to fill or not to fill any or all of the above posts, and to relax the qualifications when candidates with prescribed qualifications are not available or not found suitable and to consider and appoint persons who may not have applied.

Candidates called for interview have to attend at their own expenses.

REGISTRAR



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**Association of Indian Universities**

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